

WHAT IS CLAIMED IS:

1. A method for measuring the height of a sphere or a hemisphere, comprising the steps of:

acquiring two images, at diverse height-directional positions of focal plane, of a first sphere or hemisphere and a second sphere or hemisphere;

calculating the degree of focus at each point;

subtracting the degree of focus of the second image from that of the first image;

calculating the contour of horizontal cross sections of the spheres or hemispheres on the basis of the position of equal degree of focus; and

calculating the height of the spheres or hemispheres on the basis of the size of the contour.

2. A method for measuring the height of a sphere or a hemisphere according to Claim 1, wherein after the degree of focus of the first image is acquired, the sphere or the hemisphere and an imaging system are relatively moved closer or farther, and then the degree of focus of the second image is acquired.

3. A method for measuring the height of a sphere or a hemisphere according to Claim 1, wherein the degrees of focus of the first and the second images are acquired through a beam

splitter by a plurality of imaging systems.

4. A method for measuring the height of a sphere or a hemisphere according to Claim 1, wherein the degrees of focus of a first color image and a second color image having an optical path length difference through a glass substrate having a color-dependent refractive index are acquired by a color imaging system.

5. A method for measuring the height of a sphere or a hemisphere according to Claim 1, wherein the sphere or the hemisphere is a bump electrode of a semiconductor device.

6. A method for measuring the height of a sphere or a hemisphere according to Claim 2, wherein the sphere or the hemisphere is a bump electrode of a semiconductor device.

7. A method for measuring the height of a sphere or a hemisphere according to Claim 3, wherein the sphere or the hemisphere is a bump electrode of a semiconductor device.

8. A method for measuring the height of a sphere or a hemisphere according to Claim 4, wherein the sphere or the hemisphere is a bump electrode of a semiconductor device.